

# IRONICALLY ENJOYED MUSIC 1

## **Abstract**

Ironic enjoyment occurs when people enjoy music despite or because of it being evaluated as bad. Although initial qualitative results suggest that this phenomenon fulfils a variety of self-regulatory functions that are also found in enjoyed music, to date no research has experimentally tested how important these functions are in ironically enjoyed music, in comparison to naturally enjoyed music. In two between-subjects experiments, participants ( $N=216$  &  $N=143$ ) were instructed to think back to a recent occasion in which they listened to a piece of music which they either enjoyed ironically, or enjoyed naturally. They then answered questions on the effects this had on them (Study 1 and 2) and on the subjective qualities of the music (Study 2). The results suggested that ironically enjoyed music had less effect on personal identification and on managing positive or negative moods, and was also appreciated less and judged as less novel than naturally enjoyed music. Differences in moodmanagement functions were associated with lower levels of subjective qualities of ironically enjoyed music, especially appreciation. Novelty was especially related to positive moodenhancement for ironically enjoyed music. Participants mentioned humour as an additional function of ironically enjoyed music listening.

*Keywords:* Appreciation, Beauty, Humour, Identity, Ironically enjoyed music, Moodenhancement, Novelty

**Ironically Enjoyed Music: An Investigation of the Unique Self-Regulatory Value of  
Irony as Part of the Enjoyment of Music.**

As a versatile and effective tool to regulate psychological and physical states.

music is listened to for its impact on feelings (e. g. DeNora, 1999; Groarke & Hogan, 2015; Saarikallio, & Erkkilä, 2007) and to manage interpersonal relationships and identity, among other functions (Hartgreaves & North, 1999). But what functions are served by ironic enjoyment of music—that is, judging a piece of music as bad in some ways, yet enjoying it with this knowledge?

Some humanities scholars have studied the enjoyment of music and other media despite negative evaluations (Bennett, 2000; 2013; Bennett & Taylor, 2013; Drew, 2004, 2005), focusing on the management of social identity. More specifically, Van den Tol and Giner-Sorolla (2017) examined spontaneous definitions of the phrase ‘ironically enjoyed music’ among 96 adults, yielding a compound definition: ‘Music that is enjoyed because of it being bad, despite it being bad, or for different reasons than intended.’ They then used thematic analysis on open-ended responses from 175 adults who reported a recent instance of ironically enjoyed music. Although some motivations for ironic listening were congruent with previously found ones (e.

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g. Chin & Rickard, 2014a, 2014b; Lonsdale & North, 2011; Van Goethem & Sloboda, 2011; Saarikallio, & Erkkilä, 2007), ironic enjoyment also served specific social functions. One of these functions was mockery, which involved distancing one's own identity from the kind of person who would listen to the music naturally, while bonding with others having the same goal. This made ironic enjoyment distinctive in providing functions not usually provided by music (such as comedy).

Ironically enjoyed music also was often chosen to give energy during work or exercise (Van den Tol & Giner-Sorolla, 2017) in line with other music listening research (Schäfer, Sedlmeier, Städtler, & Huron, 2013). The catchy beats and strong rhythms of the music were described by the participants as helpful for this purpose, in spite of its intellectual and aesthetic shortcomings.

These studies, however, were exploratory and qualitative. In this paper, we extend and consolidate their findings systematically through quantitative methods, comparing the functions of ironically enjoyed and naturally enjoyed music (a term we use to encompass all non-ironically enjoyed music). In particular, we compare the two modes of enjoyment on a number of self-regulatory functions that are typically found for music (Lonsdale and North, 2011).

### **Ironic Enjoyment**

An analysis of over 5 million English-language books (Google Ngram Viewer) shows that 'ironic enjoyment' as a phrase appears only a few hundred times beginning in the early 20<sup>th</sup> century, with a recent peak around the year 2000. Most contexts are literary and cultural, for example, Baudrillard (2004/ 2013, p. 134) describing popular reactions to political spectacle, or Gooneratne (1970, p. 159)

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describing Jane Austen's approach to social rank. However, ironic enjoyment can be discussed using less academic terms ('because it was funny'; 'campy-listening'; 'guilty pleasure').

In order to understand ironic enjoyment of music, one must conceptually distinguish enjoyment from appreciation. Enjoyment responses to media are emotional (e. g. Raney, 2002, 2006), but appreciation is more cognitive. More specifically, while enjoyment only requires fast, simple, needs-oriented, intuitive processing, appreciation requires reflective, integrative processing (Tamborini, 2011, 2012; Vorderer & Ritterfeld, 2009; Lewis et al, 2015).

Thus, ironically enjoyed music may be seen as being enjoyed (positive emotions) but not appreciated (failing to meet cognitive standards such as artistic merit, meaningfulness, or quality). If so, ironically enjoyed music may be less effective in fulfilling the usual self-regulatory functions of music (Lonsdale & North, 2011). Aesthetic appreciation, for instance, lets people derive positive moods from listening to music (Brattico, Brattico, & Jacobsen, 2009), even for music that sounds sad (Van den Tol & Edwards, 2015; Vuoskoski, & Eerola, 2017). Thus, if ironically enjoyed music is enjoyed but not appreciated, it should be less effective for mood enhancement than naturally enjoyed music.

### **What Functions does Ironic Music Listening Serve?**

Ironic enjoyment may serve the same functions seen in natural enjoyment, as well as its own distinctive functions. One function for ironic engagement is suggested in field research by Drew (2004, 2005) showing that middle class people liked to ridicule karaoke while

enjoying it in a group. As karaoke was seen as a lower-class activity, middle-class listeners used irony to enjoy karaoke together without losing status. In music listening, ironic enjoyment may be a way to negotiate the conflict between enjoying ‘bad’ music and the lowered social status associated with it. Music taste is a source of social identity (Johnson & Ranzini, 2018; Hartgreaves & North, 1999; Schwartz & Fouzt, 2003). Experimental research (Lonsdale & North, 2009; Tarrant, North & Hargreaves, 2001) shows that participants give higher rewards and attributed more positive qualities to fans of liked, versus disliked, musical styles. As such, we expect that ironic enjoyment of music allows maintaining a group identity while enjoying music threatening to that identity, so it may serve a less direct social identity function than naturally enjoyed music. This is in line with earlier research on ironic enjoyment of music (Van den Tol & Giner-Sorolla, 2017) in which listeners often shared such music as they would share a joke.

### **The Current Research**

Our principal question was: What are the unique and shared self-regulatory functions of ironically enjoyed music compared to naturally enjoyed music? To test this, we created two between-participants experiments in which participants answered questions about a piece of music that they either enjoyed naturally or ironically. In Study 1, we began measuring the self-regulatory functions typically found in music listening research.

### Study 1

Participants in this study were randomly assigned to describe a recent experience of listening to music that they enjoyed either ironically or naturally, then answered scaled measures about functional effects of music listening.

#### *Hypotheses*

(H1) *Personal identification with the music would be less important for ironically enjoyed than naturally enjoyed music.* Ironic enjoyment involves distancing from the identity implications of music. While previous research shows that ironic enjoyment can increase identification with a group that also ironically enjoys music, it would not likely relate to identification with the music itself.

(H2) *Positive and negative mood-enhancement would be less important for ironically enjoyed than naturally enjoyed music.* These predictions were based on our expectations that ironically enjoyed music would provide lower levels of appreciation of its complexity and beauty than naturally enjoyed music, and that it would therefore be less effective for mood-enhancement.

Due to limited prior research, we did not have strong predictions for any other functions. However, we conjectured that ironically enjoyed music might show either similar or lower levels of the remaining functions compared to naturally enjoyed music, because the ironic stance would create distance from the music.

## **Methods**

### ***Participants***

Originally, 228 psychology students at a British university [redacted for anonymity] participated in return for course credit. Twelve participants were removed (independent of condition) because they said they never experienced ironic enjoyment of music (7) and (4) /or (1) did not believe that it existed. The final sample consisted of 216 participants, with 128 (59.8 %) participants in the ironic enjoyment condition and 88 (40.7%) participants in the natural enjoyment condition. Of the participants 24 (11.1%) identified as male, and 191 (88.4%) as female and one participant did not specify either (.5%). Age ranged from 17 to 49 ( $M = 19.53$ ;  $SD = 3.22$ ). An independent t-test and chi-square analysis revealed no statistical differences in age nor gender across conditions. Regarding nationality, 168 participants were British, five Greek, four French, three German, three Jordanian and 33 participants of different nationalities.

### ***Design***

In this between-subjects experiment, the independent variable had two conditions (ironically vs. naturally enjoyed music), and the self-regulatory functions of music were the dependent variables.

### ***Procedure and Materials***

After consenting to participate in a study about music listening, participants were randomly assigned to the ironically enjoyed or naturally enjoyed music condition. No definition was given for either naturally enjoyed music or ironically enjoyed music, but participants

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were asked to define both themselves. To allow for higher drop-out in the ironically enjoyed music conditions (from inexperience with the phenomenon) we set the survey software (Qualtrics) to gather four participants in the ironic enjoyment condition for every three participants in the natural enjoyment condition.

*Describing a Situation.* Participants were asked to describe listening to music that they either enjoyed naturally: ‘Please think back to a recent situation in which you listened to a specific piece of music that you enjoyed. Please describe the psychological effect that listening to this piece of music had on you. Do so in your own words.’; or enjoyed ironically, with the same wording but adding “ironically” after “enjoyed”

Participants were then asked, open-endedly: ‘In your own words, what do you think (ironic) enjoyment is?’

*Self-regulatory Functions.* Participants then completed the 47-item scale developed by Lonsdale and North (2011) including psychological, social, and identity functions. We did, however, change the instructions slightly. Instead of asking about reasons participants listened to music (as in the original scale) they were asked to reflect on the effects of the music example, with the prompt: ‘Listening to the music had the following effect on me:’.

The questionnaire as developed has eight sub-scales: *Personal identity*, for identity development and portraying social images to others (e.g. ‘to create an image for myself’); *Negative mood management*, to alleviate negative feelings (e.g. ‘to make me feel better’); *Positive mood-management*, to optimize positive feelings (e.g. ‘set the right mood’); *Reminiscence*, to bring back memories (e. g. ‘brings

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*back certain memories*’); *Diversion*, to relieve boredom and pass the time (e.g. *‘pass the time’*); *Arousal*, to feel energized during physical activity (e.g. *‘gives me energy’*),

*Surveillance*, to learn about current trends (e.g. *‘to learn how other people think’*); and *Interpersonal relationships/ social interaction*,

promoting social interaction (e.g. *‘helps me socialize with friends’*). All items were scored on a 5-point interval scale ranging from 1 (*I do*

*not agree with this at all*) to 5 (*I very much agree with this*). Scores for scales were created by averaging all item responses in the scale. The

entire scale and sub-scales yielded reliable alpha levels (between .61 and .91, also see Table

1 for mean scores on each sub-scale across conditions).

The questionnaire ended with three open-ended writing spaces in which participants could add ‘other’ self-regulatory functions, which they could also rate. These served to find out if participants would mention any additional functions that were not covered in the questionnaire by Lonsdale and North (2011). A total of 36 participants made use of these options.

*Time passed:* Participants indicated how long ago it was that they listened to this piece of music (in days).

*Further Information.* Participants were asked how much they would have enjoyed and identified with the music at age four, nine, and 12. These questions are not reported, because they were not relevant to the focus of the study.<sup>1</sup>

*Ironic Enjoyment Beliefs.* The study ended by asking participants three more questions about ironic enjoyment, in both conditions: ‘*Do you often experience ironic enjoyment of music?*’, ‘*Do you often experience ironic enjoyment in general?*’, and ‘*Do you believe that*

*ironic enjoyment exists?* on a 1 (*never*) to 5 (*all the time/very much*) scale. Anyone who answered 1 on any of these questions was excluded from the analyses.

*Demographics.* Finally, participants provided age, nationality, and gender.

*Ethics:* The study was approved by the University of Kent School of Psychology ethics committee.

## **Results**

### ***Preliminary Analysis***

Two independent coders read the participants' definitions of ironically enjoyed music and then rated which of the three definitions from prior research (Van den Tol & Giner-Sorolla, 2017), if any, these matched. There was a 74.22% (95 out of 128 participants' responses) agreement across coders on which definition was used ( $\kappa = .62, p < 0.001$  – a substantial agreement according to Landis & Koch, 1977). Thirty-three responses (25.78%) were classified by both coders as '*Enjoying something in spite of (or because) it being evaluated as being bad.*', 42 (32.81%) as '*Enjoying something against your own expectations.*', 17 (13.28%) as '*Feeling a different emotion than the music intends.*' and two (1.56%) responses were classified as having no fit in any category (other).

*Main Analyses*

To test the first two hypotheses, we compared the ironic to the natural listening condition, using ANOVAs with condition as independent variable and one of the listening functions as dependent variable. This analysis had 80% power to detect eta-squared ( $\eta^2$ ) of .04, a small to medium effect size.

Alpha levels of these analyses were set at  $p < .05$  for hypothesis 1,  $p < .025$  for hypothesis 2 ( $.05/2$ ), because there were two different variables measuring mood-

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enhancement) and at  $p < .01$  for the exploratory analyses of the other 5 functions (.05/5). This is in line with guidelines for the Bonferroni correction (Neyman, J. & Pearson, 1928; Sarkar, Guo, & Finner, 2012).

The two conditions were unequal in numbers (ratio = 1.45). The combination of this inequality with heterogeneity of variance is a type of assumption violation that renders ANOVA particularly non-robust (Lix, Keselman, & Keselman, 2016). Thus, Levene's test (median) was used, but did not show any variables with heterogeneity of variance at  $p > .05$ ; indeed, no standard deviation in one condition was more than 25% different from the standard deviation of the higher condition. We thus report parametric F tests as our main statistic, but note that a robust statistical test, KruskalWallis H, confirmed all significant differences from these tests, while our nonsignificant parametric tests were likewise non-significant by robust test.

INSERT TABLE 1 HERE

Significant differences by condition were found for positive moodenhancement, negative mood-enhancement, personal identity and diversion (Table 1). Means for these variables were always lower in the ironically enjoyed music condition than in the natural enjoyed music condition. Effect sizes of significant effects were in the conventionally small-to-medium range, partial  $\eta^2$  .01 to .06.

*Additional exploratory analyses*

As previous research suggested that ironically enjoyed music is not listened to as often as naturally enjoyed music, we explored whether the pieces mentioned might differ in this way (Van den Tol & Giner-Sorolla, 2017; Hanser, et al., 2016). In an ANOVA with condition as the independent variable and ‘time since last listened to’ as the dependent variable, naturally enjoyed music was significantly more recently listened to than ironically enjoyed music (Table 1).

To see whether the differences we found across conditions could be explained by the difference in recency (with related recollection problems; see Ritchie, et al., 2009 and Van den Tol & Ritchie, 2015), we conducted a series of ANCOVAs. For all these ANCOVAs, condition was the independent variable, the music listening function the dependent variable, and time since last listened was the covariate. Alpha levels of these analyses were again set at  $p < .05$  for hypothesis 1,  $p < .025$  for hypothesis 2, and  $p < .01$  for the analyses of the other music functions.

As found in the main analyses, personal identity was significantly different across conditions, with a medium effect size (see Table 1). However, diversion, positive mood-enhancement and negative mood-enhancement did not significantly differ across conditions any more (the mood-enhancement variables yielding a significance-value of .03 and .04).

Finally, there were a total of 119 responses to the open-ended items. The first author and an independent coder judged all participants’ responses and agreed that these could fit into nine different categories ( $\kappa = .42$ ,  $p < 0.001$  –a moderate agreement according to Landis & Koch, 1977). Seven of these categories reflected the functions of music listening described in the survey by

Lonsdale and North (2011) (all but surveillance) and two reflected ‘negative emotions’ and ‘thinking’. A chi-square contingency analysis was conducted to test whether the distribution of these categories differed for ironic and natural enjoyment conditions and yielded a significant result  $\chi^2(8) = 16.00, p = .04$ . These results most strongly indicated that responses in the interpersonal relationships/ social interaction category were mentioned more often in the natural enjoyment condition (7) than in the ironic enjoyment (0) condition.

### **Discussion, Study 1**

The aim of Study 1 was to find out how much ironically enjoyed music fulfils the functions that music is normally used for. As expected, and in line with our hypotheses, personal identification was found to be less important for ironically enjoyed music than for naturally enjoyed music. The effect sizes for this finding were within the small to medium range - which is typical for effects in social-personality psychology (e.g., Richard, Bond and Stokes-Zoota, 2003).

Diversion, positive mood-management and negative mood-management were also found to be less important for ironically enjoyed music (vs. naturally enjoyed music) in the ANOVAs that were conducted for the main analyses.

However, in the additional exploratory analyses it was found that ironically enjoyed music was listened to longer ago, on average, than naturally enjoyed music.

We therefore reran all main analyses with “time since listening” added as a covariate.

This rendered the differences for mood-enhancement and diversion nonsignificant.

Importantly, however, all of these would have remained significant without Bonferonni correction. More specifically, these corrections have commonly been criticized as being too conservative and reducing the chance of a type 1 error (a false positive), at the expense of increasing the chance of a type 2 error (a false negative)

(e.g. Armstrong, 2014; Moran, 2004; Sarkar, Guo, & Finner, 2012; Yoccoz, 1991). More specifically to our findings, it has been argued that these corrections are especially too conservative in the case of correlated dependent variables (Moran, 2003) and that effect sizes should guide the interpretation of results as well (see for example Armstrong, 2014). As both the mood-enhancement variables were strongly correlated with each other, while the effect sizes of these findings were within the small-to-medium range (e.g., Richard, Bond and Stokes-Zoota, 2003), we did not find it necessary to reject our hypothesis yet. Rather we found it important to conduct a second study to gather more evidence.

Nevertheless, these findings indicate that the greater use of naturally enjoyed music for both types of mood-enhancement or diversion may (at least partly) be accounted for by the fact that more recent examples of such music can be recalled, because more recent examples (or people's recollections of these, also see Ritchie, et al 2009 on the fading affect bias) are characterized more by mood-enhancement or diversion.

Social functions, namely interpersonal relationships/ social interaction and surveillance, showed no significant differences between the two types of music. This reinforces findings from other fields that ironic enjoyment of media considered bad can be used to bond with others as a badge of 'coolness,' even as the music itself is not identified with strongly.

The open-ended responses of participants were best described by adding two more categories to the Lonsdale and North (2011) scheme, namely ‘thinking’ and ‘negative emotions’. Prior research suggests that these additional categories are more commonly found when people reflect on the ‘effects of listening to music’ rather than on the ‘reasons’ for listening to music (Van den Tol, 2012). It is hence likely that these additional categories occurred for the open-ended responses due to us changing the instructions for the Lonsdale and North (2011) questionnaire.

We additionally found that examples of interpersonal relationships/ social interaction were spontaneously mentioned more in the natural enjoyment category than in the ironic enjoyment category. Such a difference was, however, not found in the analysis of the data from the Lonsdale and North (2011) questionnaire. Reflecting further on these differences, many open-ended text responses appeared to be about taking relationships to the next level (e.g. ‘*acts as an icebreaker*’, ‘*facilitates attachment*’), whereas items by Lonsdale and North were more frequently about spending time with existing relationships (e.g. ‘*helps me socialize with friends*’, ‘*makes me spend time with family*’). Apparently the two types of enjoyment related to different contexts of interpersonal relationships.

### **Limitations**

Study 1 did not directly test our assumption that mood-management involved less appreciation for ironically enjoyed music than non-ironically enjoyed music. Study 1 additionally did not provide participants with a definition of ironic enjoyment. Also, all its participants were psychology students, with a relatively large proportion of women, which limits conclusions given that gender differences in sense of irony have been found (Milanowicz & Kałowski, 2017).

## Study 2

The aim of study 2 was to replicate the findings of Study 1 and improve on its limitations. Thus, we measured the role of subjective qualities of the music, including the theoretically relevant quality of appreciation, to see their relationships to the functions of the different kinds of music. We also provided participants with a definition of ironically enjoyed music, and recruited participants from a crowdsourcing website known to have a closer male-female balance in participation. Two more hypotheses were added involving these extended aims: (H3) *Ironically enjoyed music, versus naturally enjoyed music, will show less emphasis on appreciation.* This tests our initial claim that ironically enjoyed music may often be seen as music that is enjoyed but not appreciated.

(H4) *Appreciation will be positively related to the perceived mood enhancement functions of music.* This expectation was based on findings that aesthetic appreciation of music can influence the listener's mood positively (Brattico, Brattico, & Jacobsen, 2009; Van den Tol & Edwards, 2015; Vuoskoski, & Eerola, 2017). If found, this connection together with H3 could help to explain why ironic enjoyment is less important for mood enhancement (H2).

## Methods Study 2

### *Participants*

We recruited 159 US participants from a crowdsourcing website, Amazon Mechanical Turk ([www.mturk.com](http://www.mturk.com)) in return for a small reimbursement<sup>2</sup>. A total of seven participants did not finish all questions and nine indicated they had never experienced ironic

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enjoyment of music. These participants were removed (for both conditions) from the data, leaving a sample of 143 participants.

Participants' ages ranged from 21 to 70 ( $M=38.13$ ;  $SD=12.97$ ) with 93 (65%) females and 49 (34.4%) males, and one participant with undisclosed gender (.7%). There were 69 (48.3%) participants in the ironic enjoyment condition and 74 (51.7%) in the natural enjoyment condition. 113 (79%) participants indicated their nationality to be American, two (1.4%) Irish, and two Indian. There were also one (.7%) participant each of the English, Polish, Portuguese, Hispanic and Pilipino nationality. Twenty (14%) did not provide a nationality.

### *Design*

The experimental design was identical to Study 1, adding subjective qualities to the dependent variables of function.

### *Procedure and Materials*

Qualtrics the survey platform, randomly assigned participants to a condition.

To manipulate the ironic enjoyment condition, the following definition was provided: '*We have defined ironic enjoyment of music as: When you enjoy music in spite of the fact that it's bad, because of the fact that it's bad, or you enjoy it for a different reason than the musician intended.*' We did not describe enjoyment in the naturally enjoyed music condition, on the assumption that its meaning was clear.

*Open-ended measures.* As in Study 1 all participants first had to provide information on music that they enjoyed (condition 1) or enjoyed ironically (condition 2). They were then asked to describe the effects the music had on them. Unlike in Study 1 we additionally

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asked participants to provide us with the name of the music piece: ‘*As part of this study we want you to think back to a recent situation in which you listened to a specific piece of music that you enjoyed (text for condition 1)/ enjoyed ironically (text for condition 2). Please provide us with the name of the piece of music and describe the psychological effect that listening to this piece of music had on you. Do so in your own words.*’

*Time passed:* They were then asked to indicate how long ago it was that they listened to this piece of music (in days).

*Subjective qualities.* Next came questions representing the evaluative qualities of the music. As we were not aware of a suitable measure of subjective quality of music, we developed our own. Items were formulated based on studies of subjective qualities of new product design (Sundar, Tamul, & Wu, 2014), of ironically enjoyed music (Van den Tol & Giner-Sorolla, 2017) or of music listening in general (Van Goethem & Sloboda, 2011; Van den Tol & Edwards, 2013). Some scale items (e.g., *this music is great*) had more to do with appreciation and others had more to do with hotness (e.g., *this music is hot*) or novelty (e.g., *this music is novel*). Items were scored on an interval scale ranging from 1 (*I do not agree with this at all*) to 5 (*I very much agree with this*).

Initially, 17 subjective quality items (see Table 2 for all original items) were presented. To develop coherent sub-scales we conducted factor analysis with a Varimax rotation. Only items with a factor loading  $> .7$  for the respective factor and cross-loadings  $< .4$  on other factors were selected. This resulted in an overall scale with a total of ten items. The factor analysis clearly represented one factor, ‘appreciation’, with four items ( $\alpha = .89$ , ‘*this music is great*’, ‘*the piece of music is beautiful*’, ‘*the music is the best of its kind*’,

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'*this music is original*') and one factor, 'hotness' with four items ( $\alpha = .88$ , '*this music is hot*', '*this music is hip*', '*this music is sexy*', '*this music is cutting edge*'). A third factor with two items represented 'novelty' ( $\alpha = .72$ , '*I have never heard this kind of music before*', '*this music is novel*') (see Table 3 for mean scores on each sub-scale across conditions).

INSERT TABLE 2 HERE

*Self-regulatory Functions.* Participants were then asked to fill in the 47-item self-regulatory functions questionnaire from Lonsdale and North (2011). As in study 1 this scale was adjusted to reflect the aim of our research better. Participants were again provided an option to write down three 'other' self-regulatory functions (see description of the entire scale and adjustments in study 1). The entire scale and subscales yielded a reliable alpha level (between .69 and .95) in the current sample.

*Further Information.* Participants were provided the same three questions about experience of ironic enjoyment as in Study 1, for the same exclusion purposes.

*Demographics.* After completing the study, participants provided their age, nationality, and gender.

*Ethics:* The entire procedure was approved by the University of Kent School of Psychology ethics committee.

## Results

In order to test the first three hypotheses, we carried out ANOVAs (similar to Study 1's). In each of these analyses music type was the independent variable and one of the self-regulatory functions or qualities of the music was the dependent variable.

These analyses had 80% power to detect eta-squared ( $\eta^2$ ) of .05, a small to medium effect size. As in study 1, alpha levels of these analyses were set at  $p < .05$  for hypothesis 1,  $p < .025$  for hypothesis 2, and  $p < .01$  for the analyses of the other music functions.

The cell  $N$  this time were more closely equal, but homogeneity of variance for positive and negative mood-management (and no other outcome) was strongly violated as shown by Levene's test,  $p = .002$  and  $p < .001$  respectively. However, robust Kruskal-Wallis  $H$  tests upheld the parametric findings that the difference in means for each of these variables was significant, both  $H > 12$ , both  $p < .001$ .

INSERT TABLE 3 HERE

As shown in Table 3, in line with our predictions and Study 1's findings, personal identity and both positive and negative mood-management were less important for ironically enjoyed music. These findings supported the first and second hypothesis. Reminiscence additionally yielded a significant difference (unlike in study 1); it was more important for naturally enjoyed. Moreover, the qualities appreciation and novelty were lower for ironically enjoyed music. The difference found for appreciation supported hypothesis three.

To further test the fourth hypothesis that appreciation would contribute to mood-enhancement, and to explore parallel effects for the other characteristics of music, correlational analyses were conducted, both across the full data set and separately for the two conditions (Table 4). Alpha levels of these analyses were set at  $p < .0083$  for hypothesis 4 (with a Bonferroni correction of  $.05/6$ , because this engaged 6 different analyses).

As expected, appreciation correlated positively and strongly ( $r = .42$  to  $.74$ ) with both mood-management functions in both conditions and across the data. This supported the fourth hypothesis.

PLEASE INSERT TABLE 4 HERE

*Additional exploratory analyses*

As in Study 1, we tested in an ANOVA if there were differences across conditions in the time since listened to the music. This analysis did however not yield a significant difference at  $p = .05$ , so we did not proceed to conduct any ANCOVAs with time since last listened as a covariate.

To explore the data further, several correlational analyses were also conducted to test the associations between subjective qualities of the music and all functions. Alpha levels of these analyses were set at  $p < .00075$  (with a Bonferroni correction of  $.05/66$  as there were 60 exploratory analyses - that were not part of hypothesis 4).

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As can be seen in Table 4, it was found that appreciation, hotness and novelty were related to almost all self-regulatory functions of music, across the data. These characteristics also correlated with most functions among ironically enjoyed music, but to only some functions among naturally enjoyed music.

To explore the role of condition in the relation between the subjective qualities of the music and music's functions further, a series of moderated regression analyses was conducted. For these analyses condition was always the independent variable, one of the functions of music was always the dependent variable, and one of the subjective qualities of the music was always the moderating variable. Alpha levels of these analyses were set at  $p < .0023$  (with a Bonferroni correction of  $.05/21$  as there were 21 exploratory analyses).

These analyses did provide one significant interaction effect. The interaction effect was significant when novelty was the moderating variable and positive moodmanagement was the dependent variable ( $B = .44$ ,  $SE = .13$ ,  $t = 3.40$ ,  $p = .0009$ , 95% CI = .18, .7). As can be seen in Figure 1 and Table 4, participants in the natural enjoyment condition were experiencing positive mood-enhancement regardless of the level of novelty. This was different for the ironic enjoyment condition, in which stronger associations were found between positive mood-enhancement and novelty. More specific, for the ironic enjoyment condition high levels of novelty were associated to higher levels of mood-enhancement than low levels of novelty.

PLEASE INSERT FIGURE 1 HERE

Finally, there were a total of 214 responses on the open-ended items in study

2. The first author and an independent coder judged all participants' responses and agreed that these could fit into 12 categories ( $\kappa = .60, p < 0.001$  – this classifies as a moderate agreement between both coders according to Landis & Koch, 1977) of which eight represented the eight self-regulatory functions of music by Lonsdale and North (2011) two represented negative emotions and thinking (as earlier in study 1) one represented humour (i.e. 'provides humour', 'makes me laugh' and 'is funny') and one represented 'other' category was created for miscellaneous responses.

A chi-square contingency analysis was conducted to test whether ironic and natural enjoyment conditions differed in the distribution of categories and indicated a significant result ( $\chi(11) = 27.24, p = .004$ ). The distribution of categories across conditions most strongly indicated that humour was mentioned more in the ironic enjoyment condition (11) than in the natural enjoyment (0) condition, and positive mood-enhancement more in the natural enjoyment condition (11) than in the ironic enjoyment condition (3).

## **Discussion Study 2**

In Study 2 we replicated Study 1's results for the prediction (H1) that personal identity is less important for ironically enjoyed music than for naturally enjoyed music, and strengthened support for the prediction (H2) that positive moodmanagement, and negative mood management are less important. Effect sizes of significant tests, as in Study 1, were in the small-to-medium range (see Table 4). The results also supported the third and fourth hypotheses: that appreciation is less important for ironically enjoyed music than for enjoyed

music, and that appreciation is related to levels of mood-enhancement. Moreover, other subjective qualities of the music were generally associated more weakly with moodenhancement than appreciation was.

Subjective qualities of the music were especially strongly correlated to functions in the ironic enjoyment condition, but not so much for the naturally enjoyed music condition. Moreover, a moderated regression analysis further confirmed stronger associations between positive mood-enhancement and novelty for the ironic enjoyment condition (vs. natural; see also Figure 1). Speculatively, this may be due to a greater importance of whether ironically enjoyed music is seen as possessing these qualities, which more strongly informs whether it is used for traditional music functions.

### *Limitations*

It is important to point out that correlational data cannot prove a causal relationship between any variables. Future research may want to explore some of the above findings, such as the possibility of levels of appreciation also causally contributing to mood-enhancement.

### **General Discussion**

The main aim of the present research was to examine differences in perceived motivations and effects of listening to music that is either enjoyed ironically or nonironically. Four hypotheses guided this research, which were all supported. First, in both studies, ironic vs. natural enjoyment was related less to personal identity. This may reflect that irony is useful to distance oneself from stereotypes of people who normally enjoy a certain type of music (Van den Tol & Giner-Sorolla, 2017). Secondly, both studies provided support for

the second hypothesis that listening to ironically enjoyed music produced less positive or negative mood-enhancement than listening to enjoyed music. The third hypothesis, that ironically enjoyed music is not as much appreciated as naturally enjoyed music, was confirmed, as was hypothesis four, that lower appreciation correlates with lower mood enhancement, further illuminating hypothesis two.

Appreciation, hotness and novelty were overall related to almost all selfregulatory functions of music, indicating that these factors related to the music generally having a stronger psychological impact on people. This may indicate that people's involvement with music comprises various qualities that relate to greater functionality. Interestingly, these relations were more numerous and stronger among ironically vs. naturally enjoyed music. Further analysis confirmed a significant moderation effect showing a stronger link between positive mood-enhancement and novelty for the ironic enjoyment condition (vs. natural; see Figure 1). Perhaps the functionality of ironically enjoyed music draws more on it possessing aspects of genuine enjoyment (for example, even if a dance song is seen as 'cheesy' it is emotionally engaging and 'novel'). Future research could further explore these findings with stronger causal inference, taking into account findings on the links between music selection strategies and the functions of music listening (Baltazar & Saarikallio, 2016; 2019; Van den Tol & Edwards, 2014; Van den Tol, Edwards & Heflick, 2016; Van den Tol, Coulthard, & Hanser, 2016).

In both studies participants reflected on effects of listening to the music that were not mentioned in our survey. One particularly interesting result was that participants in the ironically enjoyed music condition in study 2 commonly described the music listening as a

humorous experience. These findings distinguished the functions of ironically enjoyed music from functions commonly found in music listening research.

### ***Strengths and Limitations***

One advantage of this research was its between-subjects experimental nature in which participants were initially blind to the hypotheses of the study. The experimental design gave greater confidence that differences in functions between the two kinds of music were not simply the result of people who on their own like to listen to one versus the other. Moreover, this research built on earlier qualitative findings and theorizing, and used a two-study design with different sample populations to verify and strengthen the reliability and validity of its findings. The use of self-reported recollections of experiences could additionally be considered a limitation, as research should ideally gather data in real time or shortly after it happens.

### ***Implications and Future Research***

This is the first study to experimentally and quantitatively compare motivations for ironically enjoyed and enjoyed music listening. The results give new insights in the field of self-regulation and music listening, and open the possibility to expand to related fields, such as how people may engage ironically with music on social media, or how they ironically enjoy other media such as film and television. Future research could also classify different types of ironically enjoyed music and compare these on effectiveness for achieving self-

regulatory goals. However, to address the limitations that come with self-reporting recollected experiences, future research might best be conducted with experience sampling methods (e.g., the MuPsych phone app by Randall, Rickard, & Vella-Brodrick, 2014).

In sum, listening to ironically enjoyed music serves many of the functions that naturally enjoyed music serves. Compared to naturally enjoyed music it tends to be less used for mood-management and social identity functions. The functionality of ironically enjoyed music relates especially to its qualities of hotness and novelty, more than for naturally enjoyed music. These findings position ironic enjoyment theoretically as a mode that relies on emotional feelings of enjoyment while negating or reversing the usual mode of cognitive appreciation.

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### Endnotes

<sup>1</sup> In our studies, we report all measures, manipulations, and exclusions, and no additional participants were collected after initial data analysis.

<sup>2</sup> type 1 error (a false positive, where one falsely rejects the null hypothesis) and one way to reduce the chance of making a type 1 error is to lower the alpha levels for each analysis (Neymanm & Pearson, 1928) such as by using a Bonferroni correction. However, while lowering the alpha levels of an analysis decreases the chance of a type 1 error, it increases the chance of a type 2 error (a false negative, where one should have accepted the null hypothesis but did not). The Amazon Mechanical Turk (Mturk) participant pool has been validated as a participant sample that can provide high-quality data, especially when restricted to workers residing in the US (Buhrmester, Kwang & Gosling, 2011; Huff & Tingley, 2015).

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Table 1: ANOVAs, ANCOVAs and descriptive statistics for Study 1.

|                            | Mean (SD)          | Mean (SD)          | ANOVAs (DF=1, 214) |                 |                  | ANCOVAs (DF=2, 185) |                 |                  |
|----------------------------|--------------------|--------------------|--------------------|-----------------|------------------|---------------------|-----------------|------------------|
|                            | Naturally enjoyed  | Ironically enjoyed | <i>p</i> -value    | <i>F</i> -Value | Partial $\eta^2$ | <i>p</i> -value     | <i>F</i> -Value | Partial $\eta^2$ |
| Age                        | 19.52 (2.82)       | 19.54 (3.47)       | .96                | 0.003           | <.001            |                     |                 |                  |
| <b>Days since listened</b> | <b>1.41 (2.67)</b> | <b>4.8 (9.86)</b>  | <b>.003</b>        | <b>8.84</b>     | <b>.05</b>       |                     |                 |                  |
| <i>Music Functions</i>     |                    |                    |                    |                 |                  |                     |                 |                  |
| <b>Personal Identity</b>   | <b>2.99 (.87)</b>  | <b>2.64 (.79)</b>  | <b>.003</b>        | <b>9.36</b>     | <b>.04</b>       | <b>.01</b>          | <b>6.45</b>     | <b>.06</b>       |
| <b>Negative Mood-Man.</b>  | <b>4.07 (.71)</b>  | <b>3.74 (.87)</b>  | <b>.003</b>        | <b>10.01</b>    | <b>.04</b>       | .03                 | 4.72            | .03              |
| <b>Positive Mood-Man.</b>  | <b>4.32 (.61)</b>  | <b>4.04 (.81)</b>  | <b>.006</b>        | <b>7.79</b>     | <b>.04</b>       | .04                 | 4.37            | .02              |
| Reminiscence               | 4.15 (.86)         | 3.89 (1.03)        | .06                | 3.61            | .02              | .08                 | 3.2             | >.01             |
| Diversions                 | 3.45 (.74)         | 3.21 (.66)         | .01                | 6.19            | .03              | .33                 | .94             | .01              |
| Arousal                    | 4.00 (.81)         | 3.84 (.9)          | .21                | 1.62            | .02              | .79                 | .07             | >.0001           |
| Surveillance               | 2.44 (1.07)        | 2.20 (.88)         | .08                | 3.13            | .01              | .21                 | 1.58            | .01              |
| Social Interaction         | 2.88 (1.03)        | 2.64 (.86)         | .08                | 3.04            | .01              | .06                 | 3.67            | .02              |

Note. SD =Standard Deviation of the mean. *DF* =degrees of freedom. *p*-value refers to the 2-tailed significance. **BOLDFACE** denotes a significant difference at the relevant alpha level ( $p < .05$  for hypothesis 1, age, or days since listened,  $p < .025$  for hypothesis 2, and  $p < .01$  for any of the other analyses looking into music functions).

Partial  $\eta^2$  refers to the effect size of the 95% confidence interval for each identified difference, giving 0.01 (small), 0.09 (medium) and 0.25 (large) values.



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*Table 2: Outcome of Principal Component Analysis on all original items on the scale for subjective qualities of the music in Study 2.*

|  | Component  |            |            |
|--|------------|------------|------------|
|  | 1          | 2          | 3          |
| <b>This music is great</b>                           | <b>.87</b> | .27        | .07        |
| <b>The piece of music is beautiful</b>               | <b>.83</b> | .22        | .09        |
| <b>The music is the best of its kind</b>             | <b>.8</b>  | .14        | .28        |
| <b>This music is original</b>                        | <b>.7</b>  | .16        | .37        |
| This music is unique                                 | .64        | .18        | .59        |
| This music is distinct                               | .64        | .15        | .55        |
| This kind of music is cool                           | .64        | .52        | .25        |
| This piece of music is cool                          | .6         | .53        | .28        |
| <b>This music is hot</b>                             | .09        | <b>.89</b> | .03        |
| <b>This music is sexy</b>                            | .12        | <b>.82</b> | .01        |
| <b>This music is hip</b>                             | .15        | <b>.77</b> | .12        |
| <b>This music is on the cutting edge</b>             | .15        | <b>.71</b> | .36        |
| This music is stylish                                | .38        | .69        | .25        |
| This music is fresh                                  | .25        | .61        | .15        |
| <b>I have never heard something like this before</b> | .09        | .26        | <b>.8</b>  |
| <b>This music is novel</b>                           | .26        | .14        | <b>.78</b> |
| This music is out of the ordinary                    | .45        | .04        | .55        |

*Note.* Coefficients greater than .7 are shown in **boldface**.

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Table 3: ANOVA results and descriptive statistics for Ironically and Naturally enjoyed music compared on self-regulatory functions and subjective qualities of the music for Study 2.

|                             | Mean (SD)          | Mean (SD)          | ANOVAs (DF=1,141) |                  |                 |                  |
|-----------------------------|--------------------|--------------------|-------------------|------------------|-----------------|------------------|
|                             | Naturally enjoyed  | Ironically enjoyed | <i>r</i> -squared | <i>p</i> -value  | <i>F</i> -Value | Partial $\eta^2$ |
| Age                         | 39.45 (13.38)      | 36.71 (12.44)      | .01               | .21              | 1.59            | .01              |
| Days since heard music      | 8.42 (25.29)       | 22.33 (80.48)      | .01               | .16              | 1.99            | .01              |
| <i>Music Functions</i>      |                    |                    |                   |                  |                 |                  |
| <b>Personal Identity</b>    | <b>2.73 (1.01)</b> | <b>2.37 (1.02)</b> | <b>.03</b>        | <b>.04</b>       | <b>4.47</b>     | <b>.03</b>       |
| <b>Negative Mood-Man.</b>   | <b>3.93 (.78)</b>  | <b>3.26 (1.16)</b> | <b>.11</b>        | <b>&lt; .001</b> | <b>16.67</b>    | <b>.11</b>       |
| <b>Positive Mood-Man.</b>   | <b>4.35 (.62)</b>  | <b>3.62 (1.21)</b> | <b>.13</b>        | <b>&lt; .001</b> | <b>21.45</b>    | <b>.13</b>       |
| Reminiscence                | 3.77 (1.02)        | 3.37 (1.14)        | .03               | .03              | 4.76            | .03              |
| Diversions                  | 3.38 (0.85)        | 3.13 (1.00)        | .02               | .11              | 2.64            | .02              |
| Arousal                     | 3.36 (.97)         | 3.22 (1.18)        | .004              | .45              | 57.00           | .004             |
| Surveillance                | 2.19 (1.11)        | 2.16 (1.18)        | .000              | .88              | .02             | .000             |
| Social Interaction          | 2.26 (1.11)        | 2.37 (1.17)        | .002              | .56              | .35             | .002             |
| <i>Subjective Qualities</i> |                    |                    |                   |                  |                 |                  |
| <b>Appreciation</b>         | <b>4.32 (.72)</b>  | <b>2.85 (1.32)</b> | <b>.33</b>        | <b>&lt; .001</b> | <b>69.53</b>    | <b>.33</b>       |
| Hotness                     | 3.20 (1.22)        | 2.76 (1.25)        | .03               | .04              | 4.53            | .03              |
| <b>Novelty</b>              | <b>3.18 (1.17)</b> | <b>2.68 (1.08)</b> | <b>.05</b>        | <b>.01</b>       | <b>7.06</b>     | <b>.05</b>       |

Note. SD refers to the Standard Deviation of the mean. *DF* refers to the degrees of freedom. *p*-value refers to the 2-tailed significance.

**BOLDFACE** denotes a significant difference at the relevant alpha level ( $p < .05$  for hypothesis 1 and 3,  $p < .025$ , for hypothesis 2, age, day since listened, hotness, or novelty, and  $p < .01$  for any of the other analyses looking into music functions). Partial  $\eta^2$  refers to the effect size of the 95% confidence interval for each identified difference, giving 0.01 (small), 0.09 (medium) and 0.25 (large) values.

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Table 4: Study 2: Pearson's *r* correlations between the self-regulatory functions of music and the subjective qualities of the music for the entire data set and the ironically enjoyed and naturally enjoyed music conditions separately.

| <i>Both conditions</i>         |                 | Pos.<br>M-M.      | Neg.<br>M-M.      | Pers.-<br>Id.     | Reminisc.         | Divers.           | Arousal           | Surveill.         | Social<br>Int.    |
|--------------------------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Appreciation                   | <i>R</i>        | <b>.72</b>        | <b>.69</b>        | <b>.45</b>        | <b>.47</b>        | <b>.45</b>        | .27               | .26               | .19               |
|                                | <i>p</i> -value | <b>&lt; .0001</b> | .001              | .002              | .02               |
| Hotness                        | <i>R</i>        | <b>.37</b>        | <b>.35</b>        | <b>.33</b>        | .20               | <b>.44</b>        | <b>.49</b>        | <b>.37</b>        | .24               |
|                                | <i>p</i> -value | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>&lt; .0001</b> | .02               | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>&lt; .0001</b> | .004              |
| Novelty                        | <i>R</i>        | <b>.39</b>        | <b>.45</b>        | <b>.34</b>        | <b>.36</b>        | <b>.31</b>        | .27               | .23               | <b>.30</b>        |
|                                | <i>p</i> -value | <b>&lt; .0001</b> | .001              | .006              | <b>&lt; .0001</b> |
| <i>Ironic Enjoyment Cond.</i>  |                 |                   |                   |                   |                   |                   |                   |                   |                   |
| Appreciation                   | <i>R</i>        | <b>.72</b>        | <b>.74</b>        | <b>.57</b>        | <b>.49</b>        | <b>.59</b>        | <b>.45</b>        | <b>.47</b>        | .35               |
|                                | <i>p</i> -value | <b>&lt; .0001</b> | <b>&lt; .001</b>  | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>.0002</b>      | <b>&lt; .0001</b> | .004              |
| Hotness                        | <i>R</i>        | <b>.43</b>        | <b>.41</b>        | .35               | .26               | <b>.52</b>        | <b>.56</b>        | <b>.46</b>        | .2                |
|                                | <i>p</i> -value | <b>.0002</b>      | <b>.0004</b>      | .003              | .03               | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>&lt; .0001</b> | .1                |
| Novelty                        | <i>R</i>        | <b>.48</b>        | <b>.51</b>        | <b>.46</b>        | .34               | .30               | .29               | .25               | .38               |
|                                | <i>p</i> -value | <b>&lt; .0001</b> | <b>&lt; .0001</b> | <b>&lt; .0001</b> | .005              | .01               | .02               | .04               | .001              |
| <i>Natural Enjoyment Cond.</i> |                 |                   |                   |                   |                   |                   |                   |                   |                   |
| Appreciation                   | <i>R</i>        | <b>.50</b>        | <b>.42</b>        | .22               | <b>.41</b>        | .22               | -.05              | .04               | .16               |
|                                | <i>p</i> -value | <b>.0002</b>      | <b>.0003</b>      | .06               | <b>.0003</b>      | .06               | .67               | .76               | .19               |
| Hotness                        | <i>R</i>        | .2                | .17               | .27               | .08               | .32               | <b>.41</b>        | .28               | .31               |
|                                | <i>p</i> -value | .09               | .14               | .02               | .48               | .005              | <b>.0003</b>      | .01               | .007              |
| Novelty                        | <i>R</i>        | .17               | .29               | .2                | .34               | .29               | .24               | .22               | .27               |
|                                | <i>p</i> -value | .14               | .01               | .1                | .003              | .01               | .04               | .06               | .02               |

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*Note.*  $r$  refers to the Pearson correlation.  $p$ -value refers to the 2-tailed significance. **BOLDFACE** denotes a significant difference at the relevant alpha level ( $p < .0083$  for hypothesis 4, and at  $p < .00075$  for any of the other analyses).

Figure 1: Mean positive mood-management values, illustrating the interaction between novelty values at +/- 1 SD from the mean and condition.



